

# **First Annual Smoke Management Meeting**

---

14-15 March 2005

Arizona Department of Environmental Quality

And

Interagency Smoke Management Program

# Why Changes to the Program

---

- Regional Haze Rule
- Article 15
  - WRAP Policies
- State Implementation Plan

# Regional Haze Rule

---

- Protect visibility in Federal Class I Areas from manmade air pollution
- How
  - Assure reasonable progress, BART, adopt and implement long-term strategies, assess potential visibility impacts from new sources, visibility monitoring in Class I areas
- Regional Planning Organizations
  - WRAP: [www.wrapair.org](http://www.wrapair.org)

# Regional Haze Rule

---

- Section 309: Fire Programs
  - Smoke programs must include
    - Actions to minimize emissions
    - Evaluation of smoke dispersion
    - Alternatives to fire
    - Public notification
    - Air quality monitoring
    - Surveillance and enforcement
    - Program evaluation

# Regional Haze Rule

---

- Section 309: Fire Programs
  - Statewide emissions tracking
    - VOC, NOx, elemental and organic carbon and fine particle emissions
  - Removal of administrative barriers to the use of alternatives to burning
  - Enhance SMP
    - Consider visibility effects
  - Annual Emission Goals

# Article 15

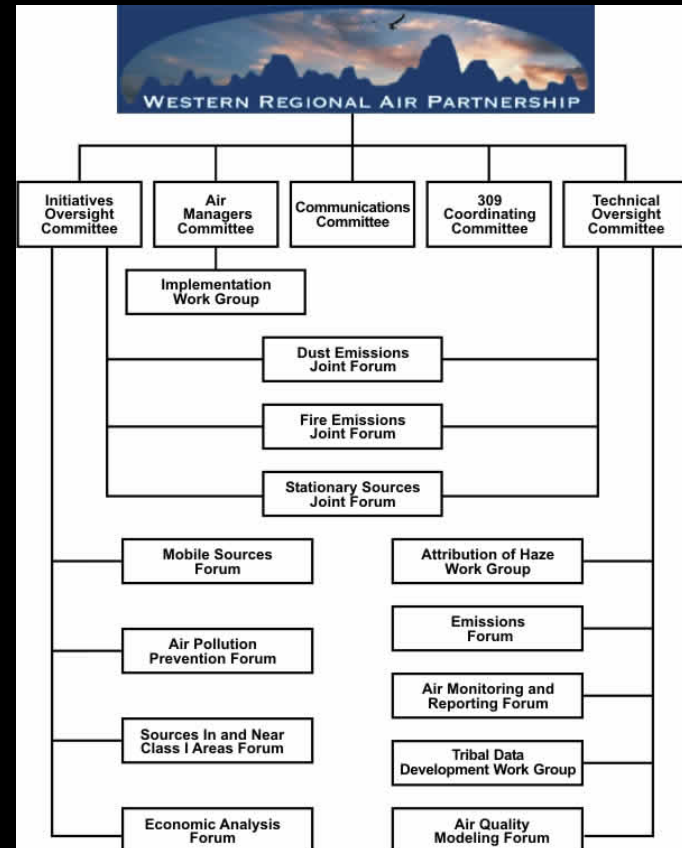
---

- Fire Emissions Work Group (FEWG)
  - Chair Kirk Rowdabaugh, Dir Fire Management
  - Stakeholders: Private Sector, Ag, Federal Land Mangers, Tribes, and Academics
  - Focus of the FEWG Develop a ESMP
    - Approach: Revise the current Rules

# Article 15

## ■ WRAP

- Fire Emissions Joint Forum
  - Categorizing Fire Emissions (11/15/01)
  - Enhanced Smoke Management Programs (01/07/03)
  - Annual Emission Goals (04/02/03)
  - Fire Tracking Systems (04/02/03)



# WRAP: CFE Policy

---

## ■ Fire Categorization

- Wildland: Natural
- Prescribed fire and WFU:
  - Natural: Maintenance (FRCCs 1)
  - Anthropogenic: Restoration (FRCCs 2&3)
- Escape Prescribed Fire:
  - Emissions prior to escape will stay the same (A or N), after escape natural



# WRAP: ESMP Policy

---

- ESMP Policy Statements:
  - Enhanced smoke management programs under this Policy are defined as those smoke management efforts that specifically address visibility effects.
  - Enhanced smoke management programs apply to all fire sources. Enhanced smoke management programs are required for states under Section 309.
  - Enhanced smoke management programs are a viable tool for all other states and tribes in the WRAP region to use in the development of their implementation plans.
  - Enhanced smoke management programs include nine elements that are necessary to meet the requirements of the Regional Haze Rule.

# WRAP: ESMP Policy

---

- Element 1. Actions to Minimize Emissions from Fire
  - Any burning techniques that reduce the actual amount of emissions produced.
- Element 2. Evaluation of Smoke Dispersion
  - Using meteorological conditions to assess the ability to minimize smoke impacts.
- Element 3. Alternatives to Fire
  - Any method of removing or reducing fuels by mechanical, biological or chemical treatments.
- Element 4. Public Notification of Burning
  - Any method that communicates burn information to the burn community, to air regulators, and to the general public. Also includes public education and media relations.

# WRAP: ESMP Policy

---

- Element 5. Air Quality Monitoring
  - Observations and/or equipment that enables an assessment of air quality impacts of smoke from fires.
- Element 6. Surveillance and Enforcement
  - An oversight mechanism that assures adherence to smoke management efforts as defined by the regional haze implementation plan.
- Element 7. Program Evaluation
  - A mechanism to assess the adequacy of the enhanced smoke management program in meeting the requirements of the Rule.
- Element 8. Burn Authorization
  - The management approach used to facilitate burn decision-making.
- Element 9. Regional Coordination
  - Communication and information sharing across state/tribe jurisdictional lines.

# WRAP: AEG Policy

---

- Annual Emission Goals
  - Section 309 of the Rule specifically requires the establishment of annual emission goals that minimize emission increases from fire to the maximum extent feasible
- The WRAP defines the Annual Emission Goal as:
  - a quantifiable value that is used to measure progress each year toward the desired outcome of achieving the minimum emission increase from fire.
- Establish Annual Emission Goals:
  - based on the utilization of currently available emission reduction techniques

# WRAP: AEG Policy

---

- A) Annual emission goals are required for states under Section 309 of the Regional Haze Rule.
- B) Annual emission goals will achieve the minimum emission increase from fire. Annual emission goals are quantifiable values that are distinct from emission limits.
- C) Annual emission goals are applied to all fire sources, excluding wildfire.

# WRAP: AEG Policy

---

- D) The minimum emission increase from fire is accomplished through the optimal application of emission reduction techniques, which provides the basis for annual emission goals.
- E) The use of emission reduction techniques to achieve annual emission goals is subject to economic, safety, technical and environmental feasibility criteria, and land management objectives.
- F) States, tribes or the designated authority will establish annual emission goals in cooperation with federal land management agencies and private entities on a yearly basis.
- G) States and tribes will need to develop a procedure for verifying the use of emission reduction techniques and for tracking the achievement of annual emission goals.

# WRAP: FETS Policy

---

## ■ Emissions Tracking Policy Statements

- A) Fire activity information for all fire types is needed in the WRAP region. A fire tracking system that captures this information will form the basis of a fire emissions inventory compiled annually, which is needed to support Regional Haze Rule requirements.
- B) A fire tracking system includes seven essential components that are necessary in order to consistently calculate emissions and to uniformly assess impacts to regional haze.
- C) A fire tracking system should include additional components as needed to support the development and implementation of annual emission goals and other control measures.
- D) A fire tracking system should include a component that addresses the projection of fire emissions, which is necessary to meet the requirements of the Regional Haze Rule.
- E) The development of fire tracking systems by states and tribes will be done collaboratively with state, tribal, local and federal land management agencies, and private parties.

# WRAP: FETS Policy

---

## ■ FETS Elements

- 1. Date of Burn
- 2. Burn Location
- 3. Area of Burn
- 4. Fuel Type
- 5. Pre-Burn Fuel Loading
- 6. Type of Burn
- 7. “Anthropogenic” or “Natural” Classification



# SIP: Long Range Strategy For Fire

---

- SIP Chapter 10
- Prescribed Fire Program Evaluation
  - Review of RHR and AZ SMP
    - revisions would be necessary
- Emissions Inventory and Tracking System
  - AZ has tracking system
    - Update to include ERT information

# SIP: Long Range Strategy For Fire

---

- Strategy for use of Non-burning Alternatives
  - Develop a process to identify and remove administrative barriers
- ESMP
  - Actions to minimize emissions: R18-2-1509
  - Evaluation of smoke dispersion: R18-2-1506 and R18-2-1510
  - Alternatives to fire: R18-2-1503(C)(8), 1503(D) and R18-2-1503(G)

# SIP: Long Range Strategy For Fire

---

## ■ ESPM

- Public notification of burning: R18-2-1513
- Air Quality Monitoring: R18-2-1508 and 1511
- Surveillance and Enforcement: R18-2-1514
- Program evaluation: R18-2-1503
- Burn Authorization: R18-2-1505 and 1508
- Regional Coordination: R18-2-1513 and 1515

# SIP: Long Range Strategy For Fire

---

## ■ Annual Emission Goals

- Collaborative process for setting annual emission goals
- Develop a process for tracking the attainment of AEG on a yearly basis.
- Projection of annual emissions
- Projection of ERT used
  - percent ERT acres
  - emissions averted

# SIP: Long Range Strategy For Fire

---

## ■ Conclusion

- Revised AZ SMP
  - Forms updated
  - Emission tracking system updated
  - Develop a Annual Emission Goal program
- Five year SIP review showing progress